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ON THE RELATION OF TRADE TO PRODUCTION AND CONSUMPTION

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1. BEARINGS OF TRADE ON THE NATIONAL ECONOMY

The importance of foreign trade to the economic life of the nation varies considerably according to the stages of the historical development of the world-wide and national economies. In the theory of trade also, the importance and implications of foreign trade will be appraised very differently according to the historical or social basis of the theory. In the days when the national economy was chiefly based on self-sufficiency, little importance was naturally attached to benefits accruing from trade. In latter days, when, due to the spread of the money economy and the unification of the national economy, the need arose for gold and silver coins, foreign trade was held important—especially in European countries which produced but little gold and silver—because it brought gold and silver from abroad. Even after this mercantile idea fell into desuetude, people were apt to regard trade as a separate entity, giving no thought to its bearings on the national economy. However, as the productive power

of the nation increased in the sequel to the establishment of capitalism, people began to set value on foreign trade because it helped to expand production by opening up new markets for home-made goods. Next, when the national importance of consumption came to claim much attention, foreign trade was valued because it conduced to the elevation of the consumptive life of the nation through the importation of foreign goods cheaply and plentifully.

The post-war business depression occasioned the growth of nationalism in all countries, and the consequent rise of nationalism of an extreme type resulted in the development of the theory of autarchy. Autarchy, pure and simple, means, in effect, the negation of trade, and as it is obviously impossible to remove business depression by the negation of trade, extreme autarchy was bound to lose favour. Thus, trade in a new sense—which we call either nationalistic trade or controlled trade—has come into being. The aim of this new form of trade is to develop foreign trade under a control exercised to ensure the all-round development of the national economy. Its purpose is to advance trade in the interests of national economy as a whole.

To interpret the significance of present-day trade in this way is, in effect, to advance a theory not consistent with those hitherto enunciated, but, on the other hand, it may be said that this interpretation of trade takes into account many of the old theories. For instance, the pre-war theory of trade based on internationalism and the post-war nationalistic theory of self-sufficiency may be unified in the present-day nationalistic trade theory. Again, the acquisition of money, which was at one time regarded as the main benefit accruing from trade, cannot be entirely ignored to-day, since it is important for balancing international accounts. Setting apart these results of trade, however, it is important nowadays to study the bearings of trade on the national economy as a whole. The theory advanced in some quarters which denounces exchange dumping as the dumping of national resources is virtually a revival of the old theory which

considered trade merely in the terms of merchandise for trade; it overlooks the national economy which lies behind it. The theories which recognise the importance of trade simply in its contribution to the expansion of production or the improvement of the consumptive life of the nation are also open to criticism because they confine attention to one side of trade, exports or imports. Trade must be studied in its relation to the national economy as a whole. This theory, which involves the viewing of trade collectively is a natural outcome of the collective development of present-day trade.

This conception of present-day trade directs attention to the relation between trade and production and consumption, for production and consumption constitute the nucleus of the national economy. However, most of the theories regarding benefits from trade, which furnish theoretical grounds either for free trade or for protectionist trade, confine attention to the effects of imports on production and consumption and, moreover, the imports assumed by these theories are mostly consumers' goods. In capitalistic countries to-day, the major part of imports consists of producers' goods—raw materials especially. In the case of Japan, for instance, producers' goods represent 79.6 per cent. of the total imports. It is, therefore, doubtful whether the theories regarding imports hitherto advanced on the assumption that imports mainly comprise consumers' goods can be applied with propriety to an import trade which is concerned largely with the importation of producers' goods. Moreover, we must study the effects not only of imports but also of exports on production and consumption.

We can grasp the true significance of trade vis-a-vis the national economy only when the effects of both exports and imports on production and consumption have been carefully studied. It is, no doubt, important to make a theoretical or abstract study of this problem and to illustrate the results of such a study by charts. The purpose of the present article is, however, rather to analyse the factors, a knowledge of which is essential for such a study. An abstract or theo-

retical study will have no practical value unless it is based on full knowledge as to what quantitative relationship exists between trade, both export and import, and production and consumption.

It is not unreasonable to contend that the export trade should be studied in its relation to production and the import trade in its relation to consumption, for it is very important to know what percentage of the goods produced at home is exported or what percentage of the goods consumed at home represents imports. But, inasmuch as producers' goods account for a large proportion of present-day imports, as already mentioned, the import trade is important not only in its relation to consumption but also in its relation to production. Likewise, the connection between the export trade and consumption cannot be ignored in a country like Japan, whose exports consist largely of consumers' goods, though the importance of the export trade lies primarily in its relation to production. In the present article, therefore, I shall first consider the relation between the total amount of trade and the amount both of production and of consumption, and next the relation between production and exports, while the relation between consumption and imports will also be studied. Then, these relations will be examined in respect of each branch of production, and, lastly, the historical development of these relations will be studied.

2. RELATION OF THE TOTAL AMOUNT OF TRADE TO PRODUCTION AND CONSUMPTION

In no country are accurate statistical figures available in regard to the amount of production. In Japan, such figures are published by various institutions, but none of them can be said to be entirely satisfactory, there being discrepancies between the figures published. The statistical figures of production which I have made use of in the present article are (A) those contained in the "Manual on Items of Monetary

Circulation," compiled by the Financial Bureau of the Department of Finance, (B) those contained in the "General Outlines of Japan's National Resources," published by the Home Office, and (C) those given in the "Development of Japan's Industry and Trade," issued by the Mitsubishi Institute for Economic Research. The figures contained in these three publications do not exactly tally with one another. In most cases, the figures in (A) are the smallest, while those in (B) are invariably the largest. The trade figures, with which the figures of production are compared, have been taken from the Finance Department's Monthly Returns of Japan's Foreign Trade.

It is no exaggeration to say that practically no materials with direct reference to the amount of consumption are available. Consequently, the necessary figures must be worked out by deducting the amount of exports from the amount of production and then adding the amount of imports to the remainder (the amount of production—the amount of exports + the amount of imports).

Table No. 1. Ratios of production to trade.

	Total amount of trade (In ¥1,000.000)			Total amount of production (In ¥1,000,000)			Ratio of trade to production			
	Exports	Imports	Total trade	(A)	(B)	(C)	(A)	(B)	(C)	average
1929	2,148	2,216	4,364	12,786	14,311	12,992	34.1	30.5	33.6	32.7
1930	1,469	1,546	3,015	9,653	10,882	9,828	31.2	27.7	30.7	29.9
1931	1,146	1,235	2,382	8,353	9,537	8,421	28.5	25.0	28.3	27.3
1932	1,409	1,431	2,841	9,638	10,726	9,632	29.5	26.5	29.5	28.5
1933	1,861	1,917	3,778	12,331	13,469	12,354	30.6	28.0	30.6	29.7
Average	1,607	1,669	3,276	10,552	11,785	10,645	31.0	27.8	30.8	29.6

The total amount of trade and that of production during the five years of 1929–1933 are shown in Table No. 1. It will be seen from this table that the average amount of trade for the five years under review is ¥3,270,000,000, while that of production is ¥10,550,000,000 in (A), ¥11,785,

000,000 in (B) and ¥10,640,000,000 in (C). The average percentage of the amount of trade to that of production for the five years is 31.0, 27.8 and 30.3 per cent. respectively in (A), (B) and (C). These three figures average 29.6 per cent. This shows that Japan's trade accounts for some 30 per cent. of the total production.

The trade ratio differs considerably with the year. It was lowest in 1931 and highest in 1929. The absolute amount of trade and that of production were also smallest in 1931 and largest in 1929. In other words, the trade ratio was high in the year when the absolute amount of production and that of trade were large, while it was low in the year when the absolute amount of production and that of trade were small. Thus, it may be said that the trade ratio is high when business is prosperous, and that it is low when business is depressed. This fact is very suggestive and deserves special note.

Next, I have worked out the total amount of consumption by the formula already mentioned, viz. production − exports + imports, and have then found the ratio of trade to it. As shown in Table No. 2, the ratio of trade in this instance is practically the same as that of trade to the amount of production. That is to say, trade represents some 30 per cent. of consumption. As consumption here includes what is called productive consumption, it is but natural that

Table No. 2. Ratios of consumption to trade.

	Total amount of trade (In ¥1,000,000)			Total amonnt of consumption (In ¥1,000,000)			Ratio of trade to consumption			
	Exports	Imports	Total trade	(A)	(B)	(C)	(A)	(B)	(C)	Average
1929	2,148	2,216	4,364	12,854	14,379	13,060	34.0	30.3	33.4	32.5
1930	1,469	1,546	3,015	9,730	10,959	6,905	30.9	27.5	30.4	29.6
1931	1,146	1,235	2,382	8,442	9,626	8,510	28.2	24.7	28.0	27.9
1932	1,409	1,431	2,841	9,660	10,748	9,654	29.4	26.4	29.4	28.4
1933	1,861	1,917	3,778	12,387	13,525	12,410	30.5	27.9	30.4	29.6
Average	1,607	1,669	3,276	10,614	11,847	10,707	30.9	27.7	30.6	29.4

little difference is shown between the trade ratio in the two cases, for consumption in this sense must theoretically accord with production.

3. RELATION BETWEEN EXPORTS AND PRODUCTION AND BETWEEN IMPORTS AND CONSUMPTION

In the study of the relation between the development of productive power and foreign trade, it is important to know what percentage of the goods produced at home is exported, for we can then see what percentage of the productive power of the country is dependent on the oversea markets. The ratios of the total amount of exports to the total amount of production during the five years under review are, as will be seen from Table No. 3, 15.2, 13.6 and 15.1 per cent. respectively, on the average, in (A), (B) and (C). These three figures average 14.5 per cent. It will thus be seen that Japan is exporting about 15 per cent. of her production.

Table No. 3.

Relation between total production and total exports.

	Total production (In ¥1,000,000)			Total exports (In ¥1,000,000)	Ratio of exports to production			
	(A)	(B)	(C)		(A)	(B)	(C)	Average
1929	12,786	14,311	12,992	2,148	**16.8**	**15.0**	**16.5**	**16.1**
1930	9,653	10,882	9,828	1,469	**15.2**	**13.5**	**14.9**	**14.5**
1931	8,353	9,537	8,421	1,146	**13.7**	**12.0**	**13.6**	**13.1**
1932	9,638	10,726	9,632	1,409	**14.6**	**13.1**	**14.6**	**14.1**
1933	12,331	13,469	12,354	1,861	**15.1**	**13.8**	**15.1**	**14.7**
Average	**10,552**	**11,785**	**10,645**	**1,607**	**15.2**	**13.6**	**15.1**	**14.5**

The export ratio also varies with the year. It is lowest in 1931 in all cases, and then follow 1932, 1930 and 1933, in that order, the year 1929 showing the highest ratio. This order of ratios accords, almost without exception, with the order of absolute amounts of production and exports. It may be noted that 1930 and 1931 were the years of world

depression, and in Japan especially depression prevailed in those years consequent on the lifting of the embargo on the export of gold, while in 1932 and 1933 trade began to develop an upward turn. 1929 was the year just preceding the world depression. The five years under review represent a period in which the economic world experienced most violent fluctuations. What we can say of this period is that exports decreased in the years in which production declined and that the rate of decrease was much higher in exports than in production. On the other hand, exports increased in the years in which production grew, though the rate of increase was higher in the former than in the latter. In other words, the increase or decrease of exports was more acute and remarkable than the increase or decrease of production. It will thus be seen that the elasticity of exports is greater than the elasticity of production.

It does not seem that anybody has ever remarked on this fact, but, as clear from what I have so far outlined, this is a fact observable not only in regard to exports but also as regards imports and the total amount of trade. It may fairly be said that the elasticity of trade is, as a rule, greater than that of production. How can this fact be explained, then? Attention may first be directed to the fact that one belongs to the process of production and the other to the process of circulation. Since exports belongs to the process of circulation, which comes after the process of production, it may at first sight appear that the increase of exports follows the increase of production, but things do not necessarily move according to this rule of causal sequence. Although no definite theory has yet been advanced on the difference in quantitative changes which fluctuations in business bring about at the stage of production and at the stage of circulation, it appears safe to claim the existence of such differences in regard to production and trade at least. Secondly, it is difficult to explain the above fact by reason of the different effects of fluctuations in business on producers' goods and on consumers' goods. According to the

theory generally accepted, fluctuations in producers' goods are more pronounced than those in consumers' goods, which constitute about 58 per cent. of the total amount of Japan's exports. Thirdly, it seems possible to explain it to a certain extent by the fact that domestic and oversea markets are closely interwoven. It may be argued that, as in times of business boom, productive power, which would otherwise be devoted to the purpose of supplying the needs of the home market, will be used for the production of goods for exports, the export trade increases at a rate higher than that shown in the increase of production and that, on the other hand, as productive power usually employed for producing articles for exports is turned to the purpose of supplying domestic needs in time of business depression, the decline in exports is more pronounced than the decline in production. In any case, this phase of the problem deserves further careful study.

Next, we must consider the relationship in which the total consumption and the total imports stand to each other. As the total consumption, worked out by the formula: production − exports + imports, includes productive consumption, it is not necessarily out of place to contrast consumption with imports, even where imports consist largely of producers' goods. For when we know what percentage of the goods in demand at home is dependent on supplies from abroad, we also know the degree of the dependence of Japan's national economy on foreign countries. As will be seen from Table No. 4, the percentage of imports to consumption is, roughly speaking, 15 per cent., though the figures worked out differ somewhat according to the different materials used. That is to say, it is practically the same as the export ratio to production. This is, indeed, a natural outcome of the state of equilibrium practically maintained between exports and imports—and accordingly between production and consumption—in the five years under review. In this case also, the import ratio moves, on the whole, in proportion to the rise or fall in the absolute amount of consumption. That is,

the ratio was lowest in 1931, when the absolute amount of consumption was smallest, while it was highest in 1929, when the absolute amount of consumption was largest. This is a fact worthy of special note.

Table No. 4.

Relation between total consumption and total imports.

	Total consumption (In ¥1,000)			Total imports (In ¥1,000)	Import ratio to consumption			
	(A)	(B)	(C)		(A)	(B)	(C)	Average
1929	12,854	14,379	13,060	2,216	17.2	15.4	17.0	16.5
1930	9,730	10,959	9,905	1,546	15.9	14.1	15.6	15.2
1931	8,442	9,626	8,510	1,235	14.6	12.8	14.5	14.0
1932	9,660	10,748	9,654	1,431	14.8	13.3	14.8	14.3
1933	12,387	13,525	12,410	1,917	15.5	14.2	15.4	15.0
Average	10,614	11,847	10,707	1,669	15.7	14.1	15.6	15.0

4. RELATION BETWEEN PRODUCTION AND EXPORTS, AS CLASSIFIED ACCORDING TO BRANCHES OF INDUSTRY

In order to see what percentage of products in various branches of industry or production are exported, I classified production into agricultural, stock-farming, forestry, fishery, mineral and industrial goods, and looked into the percentage of the exports of each to production. Table No. 5 shows the results.

It will be seen from Table No. 5 that the average percentage of exports for the five years under review is only 2.2 per cent. in agricultural products, 3.4 per cent. in stock-farming products, 7.8 per cent. in forestry products, 4.0 per cent. in fishery products, and 8.8 per cent. in mineral products. The export ratios of these primary products are thus very low. It must be added, however, that the above figures represent the ratios of the exports of primary products in their crude state, commodities manufactured from agricultural products being included in industrial goods. For instance, whereas cottons are listed among agricultural pro-

Table No. 5.

Relation between production and exports, as classified according to branches of industry.

	Amount of production[1] (In ¥1,000,000)					Amount of (In ¥1,000,		
	1929	1930	1931	1932	1933	1929	1930	1931
Agricultural	3,162	2,144	1,828	2,272	2,787	68	48	47
Stock-farming	219	193	171	169	192	8	5	4
Forestry	299	217	199	205	248	25	18	12
Fishery	534	423	377	372	437	27	22	14
Mineral	699	564	437	507	805	45	61	42
Industrial	7,873	6,113	5,340	6,112	7,862	1,913	1,286	1,017
Total	12,786	9,654	8,353	9,638	12,332	2,149	1,470	1,147

exports[2] 000)		Export ratio to production					
1932	1933	1929	1930	1931	1932	1933	Average
49	55	2.2	2.2	2.6	2.2	2.0	**2.2**
6	9	3.7	2.6	2.3	3.6	4.7	**3.4**
14	23	8.4	8.3	6.0	6.8	9.3	**7.8**
11	14	5.1	5.2	3.7	3.0	3.2	**4.0**
44	68	6.4	10.7	9.6	8.7	8.4	**8.8**
1,247	1,654	24.3	21.0	19.0	20.4	21.0	**21.1**
1,410	1,861	**16.8**	**15.2**	**13.7**	**14.6**	**15.1**	**15.1**

1) The figures are those of the Manual on Items of Monetary Circulation, issued by the Financial Bureau of the Finance Department.
2) The figures are those of the Finance Department's Monthly Return of Foreign Trade.

ducts, raw silk for export falls under the head of industrial goods. In any case, the exports of primary products in their crude state represent a very low percentage. This shows that in the light of her export trade Japan has ceased to be an agricultural country. On the other hand, the export ratio of industrial goods is as high as 21.1 per cent. on the average. Inasmuch as the export ratio of products to the total production averages about 15 per cent., as already mentioned, the export ratio of industrial goods far surpasses the

average ratio. So far as the export trade is concerned, Japan has already attained the status of an industrial country.

I have, therefore, subdivided industrial goods in order to ascertain the export ratio to production in regard to each branch of industry or each principal commodity. The results are shown in Table No. 6.

From the above table, it will be seen that the export ratio of textiles is remarkably high, the average ratio for the five years under review showing the figure of 36.3 per cent., though a tendency of gradual decline is observable. Different textiles have different export ratios, however. Rayon tissues show the highest ratio of 83.6 per cent., while raw silk comes next with 82.3 per cent. That is to say, a large proportion of these commodities produced at home is exported. Next in order comes cotton tissues, which shows the fairly high ratio of 53.3 per cent. On the other hand, spun silk yarn, spun cotton yarn, rayon and woollen tissues show the low ratios of 2.3, 3.3, 5.9 and 2.8 per cent. respectively.

Next, ceramics, etc., show the comparatively high export ratio of 19.7 per cent. Of these, the ratio of potteries is highest at 41.1 per cent., and that of glass manufactures is also fairly high at 25.2 per cent. The ratio of cement is 12.2 per cent. On the other hand, the export ratio of foodstuffs to the total production is very low at 6 per cent. The export ratio of sugar to the total production in highest of foodstuffs at 15.2 per cent. Metal manufactures also indicate a low ratio of 5.9 per cent. Nor is the ratio of machinery high, for it is only 6.6 per cent. Of the goods under this category, electric motors, spinning machines and vehicles are comparatively high, their rates ranging from 14 to 17 per cent. The metal and the machinery industries, which have direct relation to the development of the heavy industries in Japan, are expected to make a good advance in future, though at the present moment their export ratios are much lower than those of light industrial goods. Compared with

these industries, chemical industrial goods, which is an industry of comparatively recent growth in this country, show a comparatively high rate, for their export ratio to the total stands at 9.9 per cent. Of these goods, industrial chemicals show the highest ratio of 19.2 per cent., while celluloid and papers, Japanese and foreign, show the ratios of 15.1 and 13.6 per cent. respectively. " Other industrial goods " consist largely of sundry goods, and the export ratio of these goods is an high as 32.8 per cent. This high rate is presumably due in part to the fact that the total production of sundry goods is under-estimated. In short, while it is impossible to say that the figures given above are entirely accurate, they cannot be dismissed as very wide of the mark.

5. THE HISTORICAL DEVELOPMENT OF EXPORT AND IMPORT RATIOS

In the above study, I have directed attention chiefly to conditions in the five years of 1929–1933 in order to see what percentage of production and consumption in this country is dependent on foreign trade. The study of this subject in the light of the course of historical development will also be of much interest. For it is very likely that a country's economic relations with the outside world will become closer as its national economies attain higher capitalistic development. That is to say, the degree of dependence of the country's production and consumption (productive and individual consumption) on exports and imports respectively ought to increase with its capitalistic development.

But when capitalism has developed beyond a certain limit, a movement begins to be launched and a policy adopted which aims at reducing the degree of dependence of production on exports and of consumption on imports. The idea of autarchy which developed after the World War is a most notable example. However, this idea aims, in effect, at the reduction of imports only, while seeking to develop exports. It will, therefore, rather tend to intensify the degree of the

Table No. 6. Production and exports in

	Amount of production (In ¥1,000,000)				
	1929	1930	1931	1932	1933
Textiles	**3,485.5**	**2,462.7**	**2,195.6**	**2,551.3**	**3,272.0**
Raw silk	857.6	536.7	427.7	469.5	497.7
Spun silk yarn	81.4	51.8	51.7	53.8	56.9
Spun cotton yarn	676.8	432.3	382.3	460.0	677.6
Rayon	45.4	49.7	50.7	61.7	104.1
Silk tissues	426.1	371.9	357.3	391.7	446.6
Cotton tissues	736.5	498.0	423.0	531.9	704.9
Woollen tissues (including cotton mixtures)	197.8	153.8	143.7	158.3	192.3
Rayon tissues	36.1	42.0	44.4	70.5	98.6
Ceramics, etc.	**288.5**	**218.2**	**196.3**	**220.2**	**286.5**
Potteries	74.8	62.4	54.2	65.3	85.2
Glass manufactures	44.7	40.6	34.4	37.2	52.5
Cement	100.4	61.3	61.6	68.2	85.1
Foodstuffs	**1,091.5**	**918.2**	**808.8**	**843.5**	**976.1**
Sake	355.0	316.1	266.6	276.7	310.6
Beer	85.1	79.9	67.8	68.2	84.8
Sugar	158.1	129.6	108.2	110.8	123.5
Metal manufactures	**501.7**	**363.3**	**308.0**	**400.5**	**562.0**
Copper manufactures	108.1	71.0	51.0	56.6	75.9
Brass manufactures	28.9	16.6	18.4	25.4	36.2
Machinery	**682.2**	**615.8**	**443.3**	**543.8**	**805.1**
Electric motors	16.0	14.8	10.4	9.9	21.6
Spinning machines	30.1	21.2	22.8	27.5	44.2
Vehicles	153.2	90.5	75.6	77.3	114.2
Vessels	52.7	115.1	38.1	46.1	38.4
Chemical industrial goods	**974.3**	**822.4**	**722.4**	**839.7**	**1,115.5**
Dyes, pigments, coatings & filling matters	55.1	47.5	46.9	62.3	86.6
Papers, Japanese and foreign	190.6	154.6	134.1	132.1	168.5
Celluloid	19.5	12.3	10.4	12.2	24.2
Fertiliser	210.8	158.3	124.7	158.0	201.9
Industrial chemicals	116.2	113.2	113.5	140.9	205.1
Other industrial goods	**452.3**	**374.1**	**345.4**	**401.2**	**840.3**
Lacquered wares	33.9	28.2	25.7	26.6	29.6
Rubber manufactures	76.6	60.8	59.7	65.9	86.7
Paper manufactures	27.6	25.6	23.5	27.3	36.5
Total	**7,873.8**	**6,113.2**	**5,340.8**	**6,112.0**	**7,861.9**

1) Production figures have been taken from the Manual on Items of Monetary in the Finance Department's

various branches of industry.

Amount of exports (In ¥1,000,000)					Export ratio to production (%)					
1929	1930	1931	1932	1933	1929	1930	1931	1932	1933	Aver-age
1,498.4	**907.0**	**720.1**	**907.3**	**1,110.6**	**43.0**	**36.8**	**32.8**	**35.6**	**34.0**	**36.4**
781.0	416.6	355.3	382.3	390.9	91.1	77.6	83.1	81.4	78.5	82.3
0.7	0.5	0.3	3.0	2.0	0.9	1.0	0.6	5.6	3.5	2.3
26.7	15.0	8.5	21.5	15.7	3.9	3.5	2.2	4.7	2.3	3.3
0.1	3.2	2.2	5.9	9.4	0.2	6.4	4.3	9.6	9.0	5.9
149.9	65.7	43.0	50.2	63.5	35.2	17.7	12.0	12.8	14.2	18.4
412.7	272.1	198.7	288.7	383.2	56.0	54.6	47.0	54.3	54.4	53.3
4.1	2.7	1.3	4.4	12.3	2.1	1.8	0.9	2.8	6.4	2.8
	34.9	39.7	60.5	77.3		83.1	89.4	85.5	76.4	83.6
59.3	**46.8**	**34.9**	**40.7**	**58.3**	**20.6**	**21.4**	**17.8**	**18.5**	**20.3**	**19.7**
36.9	27.1	19.3	22.9	35.6	49.3	43.4	35.6	35.1	41.8	41.1
13.2	9.6	6.5	9.2	15.3	29.5	23.6	18.9	24.7	29.1	25.2
9.1	10.0	9.0	8.5	7.3	9.1	16.3	14.6	12.5	8.6	12.2
67.1	**58.6**	**42.2**	**44.4**	**69.4**	**6.1**	**6.4**	**5.2**	**5.3**	**7.1**	**6.0**
2.5	2.2	1.7	3.2	2.9	0.7	0.7	0.6	1.2	0.9	0.8
3.7	3.4	3.0	4.8	7.6	4.3	4.3	4.4	7.0	9.0	5.8
31.1	27.5	15.3	8.8	16.0	19.7	21.2	14.1	7.9	13.0	15.2
25.2	**22.4**	**16.0**	**21.1**	**42.6**	**5.0**	**6.2**	**5.2**	**5.3**	**7.6**	**5.9**
0.1	0.1		0.1	0.1	0.1	0.1	—	0.2	0.1	0.1
0.9	0.6	0.4	0.5	1.3	3.1	3.6	2.2	2.0	3.6	2.9
38.6	**35.2**	**29.8**	**34.7**	**67.6**	**5.7**	**5.7**	**6.7**	**6.4**	**8.4**	**6.6**
2.4	3.0	2.6	1.4	2.7	15.0	20.3	25.0	14.1	12.5	17.4
3.6	3.8	5.1	3.6	4.8	11.9	18.0	22.4	13.1	10.9	15.3
12.6	10.8	8.4	11.5	28.3	8.2	11.9	11.1	14.8	24.8	14.2
6.3	5.4	3.9	7.4	1.7	12.0	4.7	10.2	16.1	4.4	9.5
95.3	**93.8**	**72.2**	**71.9**	**108.5**	**9.8**	**11.4**	**10.0**	**8.6**	**9.7**	**9.9**
5.1	5.3	4.1	6.0	11.7	9.3	11.2	8.8	9.6	13.5	10.5
26.2	27.5	20.9	14.0	17.6	13.7	17.8	15.6	10.6	10.4	13.6
2.2	1.5	1.4	2.3	4.7	11.3	12.2	13.5	18.9	19.5	15.1
4.3	2.8	3.9	4.7	9.0	2.0	1.8	3.1	3.0	4.5	2.9
26.2	23.5	18.9	24.0	38.5	22.5	20.8	16.7	17.0	18.8	19.2
129.7	**122.0**	**102.5**	**127.4**	**197.1**	**28.7**	**32.6**	**29.7**	**31.8**	**41.0**	**32.8**
1.8	1.4	1.0	1.1	2.3	5.3	4.0	3.9	4.1	7.8	5.0
1.4	1.2	1.0	1.4	3.3	1.8	2.0	1.7	2.1	3.8	2.3
7.0	5.5	4.5	5.2	8.9	25.4	21.5	19.2	19.0	24.4	21.9
1,913.9	**1,286.0**	**1,017.8**	**1,247.7**	**1,654.7**	**24.3**	**21.0**	**19.1**	**20.4**	**21.0**	**21.2**

Circulation, while export figures have been worked out on the basis of those Monthly Returns of Foreign Trade.

country's dependence on exports. In these days of armament expansion especially, all countries are endeavouring to increase the productive power of this munitions industries, and if they want to maintain this productive power at a high level in peace time, they must of necessity export surplus production. In such circumstances, the export ratio of heavy industrial goods is bound to rise.

Such being the case, the study of fluctuations in the export ratios of commodities over a comparatively long period is of considerable interest, but, as mentioned at the beginning of the present article, the materials bearing on the national production and consumption of goods are so meagre that it is difficult to study this problem thoroughly at the present moment. In the present article, I have tried to present the problem in mere outline with the aid of the inadequate materials available. The "Manual on Items of Monetary Circulation," issued by the Finance Department, enables us to work out the total amounts of production in the years since 1916, though the figures for production in the earlier period are far from perfect, while the "General Outlines of Japan's National Resources," compiled by the Home Office, furnishes us with the figures for production since 1920. By help of these materials, we can form a general idea of the changes which came over the export and import ratios in the past-war years. Table No. 7 shows the export ratios.

According to (A) figures in Table No. 7, the export ratios are very high in the several years following 1916, that is, in the days of the war-time business boom. They continued comparatively high for several more years, but in the five years under review they are very low. That is to say, the falling tendency of the export ratios is observable, though not very distinctly. Due allowance must, however, be made for possible statistical errors. Besides, many items of production are left out of calculation in the total production given for the earlier years. This, presumably, accounts to some extent for the high export ratios shown in the table. It is nevertheless possible to discern fairly clearly a certain

Table No. 7. Historical development of the export ratios.

	Total production (In ¥1,000)		Total exports (In ¥1,000)	Ratio of exports to production	
	(A)[1]	(B)		(A)	(B)
1916	4,247,163	——	1,127,468	26.5	—
1917	6,277,669	——	1,603,005	25.5	—
1918	9,125,012	——	1,962,100	21.5	—
1919	12,721,545	——	2,098,872	16.5	—
1920	9,949,641	13,913,194	1,948,394	19.6	14.0
1921	——	12,657,135	1,252,837	—	9.9
1922	10,189,580	12,259,307	1,637,451	16.1	13.4
1923	10,481,727	12,904,077	1,447,750	13.8	11.2
1924	11,109,859	14,111,174	1,807,034	16.3	12.8
1925	11,956,792	14,860,294	2,305,589	19.3	15.5
1926	10,757,058	13,645,866	2,044,727	19.1	15.0
1927	9,873,790	13,450,388	1,992,317	20.2	14.8
1928	10,648,817	13,998,754	1,971,955	18.5	14.1
1929	12,786,107	14,311,801	2,148,618	16.8	15.0
1930	9,653,785	10,882,711	1,469,852	15.2	13.5
1931	8,353,036	9,537,584	1,146,981	13.7	12.0
1932	9,638,392	10,726,641	1,409,991	14.6	13.1
1933	12,331,591	13,469,492	1,861,045	15.1	13.8

1) The figures down to 1920 do not include the production of sake, beer, sugar, ships and salt.

relationship existing between fluctuations in business conditions and export ratios. For instance, for the years 1921, 1923 and 1931, in which the effects of financial panics were most disastrously felt, the export ratios are remarkably low. On the contrary, they are very high in the World War years and in the years of business boom after the Kwanto Earthquake. In times of depression and panic, the amount of production dwindles considerably, but the amount of exports declines to an even greater extent. In the years of business boom, however, the export trade expands more than production does. These phenomena are not so distinctly in (B) figures; nor is the falling tendency of export ratios clearly demonstrated in them. Yet, such a tendency is discernible to a greater or smaller extent. As, due to the paucity of

the materials for study, it is impossible to trace the course of historical development over a long period, the relationship between the historical development of capitalism and trade ratios cannot here be set forth as conclusively supported by facts.

Table No. 8 has been compiled for a similar study in regard to the ratio of imports to consumption (productive consumption and individual consumption), the total amount of consumption having been worked out by the formula already given, viz., production − exports + imports.

Table No. 8. Historical development of the import ratios.

	Total consumption (In ¥1,000)		Total imports (In ¥1,000)	Ratio of imports to consumption (%)	
	(A)[1]	(B)		(A)	(B)
1916	3,875,922	——	756,427	19.5	—
1917	5,710,475	——	1,035,811	18.1	—
1918	8,831,055	——	1,668,143	18.9	—
1919	12,796,132	——	2,173,459	17.0	—
1920	10,337,421	14,306,974	2,336,174	22.6	16.3
1921	——	13,018,452	1,614,154	—	12.4
1922	10,442,437	12,512,164	1,890,308	18.1	15.1
1923	11,016,207	13,438,557	1,982,230	18.0	14.8
1924	11,756,227	14,757,542	2,453,402	20.9	16.6
1925	12,223,860	15,127,362	2,572,657	21.0	17.0
1926	11,089,815	13,978,623	2,377,484	21.4	17.0
1927	10,060,626	13,637,224	2,179,153	21.7	16.0
1928	10,873,176	14,223,113	2,196,314	20.2	15.4
1929	12,853,729	14,379,423	2,216,240	17.2	15.4
1930	9,730,003	10,958,929	1,546,070	15.9	14.1
1931	8,441,727	9,626,275	1,235,672	14.6	12.8
1932	9,659,862	10,748,111	1,431,461	14.8	13.3
1933	12,387,765	13,525,666	1,917,219	15.5	14.2

1) The figures down to 1920 do not include the production of sake, beer, sugar, ships and salt.

Changes in the import ratios, as shown in Table No. 8, point, generally speaking, to the same conclusion as has been reached in regard to the export ratios. First, the falling

tendency is observable in the import ratio during the period under review. Secondly, the increase of the ratio in the years of business activity and its decline during periods of business depression are noticeable. Here, again, due allowance must be made for statistical errors, and consequently it is doubtful whether things actually moved exactly as the figures in the table indicate. Yet, all things considered, it seems difficult not to accept the above-mentioned facts as reflecting the general trends.